MONTANA Economy at a Glance

MAY 2008

EMPLOYMENT BY INDUSTRY

(Does not include self-employed or agricultural employment)

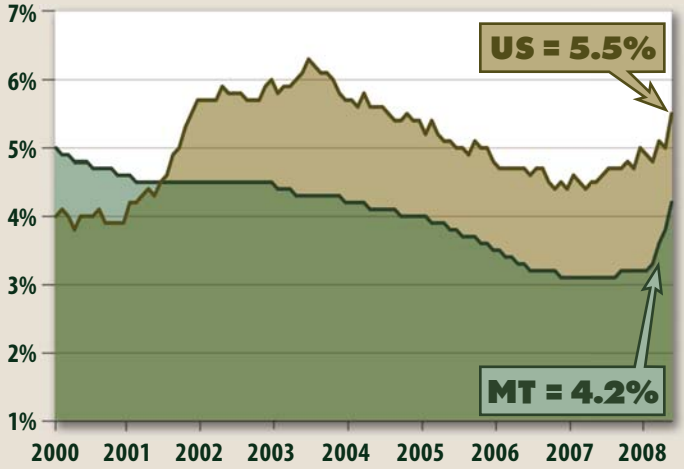
Industry Employment (in thousands)	May(P) 2008	Apr. 2008	Net Change	Percent Change
Total Non-Agricultural	451.1	450.6	0.5	0.1%
Natural Resources & Mining	8.7	8.7	0.0	0.0%
Construction	33.0	32.7	0.3	0.9%
Manufacturing	20.7	20.6	0.1	0.5%
Trade, Transportation, & Utilities	93.8	93.8	0.0	0.0%
Information	7.6	7.6	0.0	0.0%
Financial Activities	21.7	21.7	0.0	0.0%
Professional & Business Services	42.5	42.3	0.2	0.5%
Education & Health Services	60.1	60.0	0.1	0.2%
Leisure & Hospitality	60.1	59.8	0.3	0.5%
Other Services	17.3	17.5	-0.2	-1.1%
Total Government	85.6	85.9	-0.3	-0.3%

(P) denotes preliminary figures

Montana's seasonally-adjusted non-agricultural payroll employment increased by 500 jobs (0.1%) from April to May 2008. Leisure & Hospitality and Construction showed the largest gains with 300 additional jobs each. Meanwhile, Total Government experienced the largest decrease, with a loss of 300 (-0.3%) jobs over the month.

UNEMPLOYMENT RATE

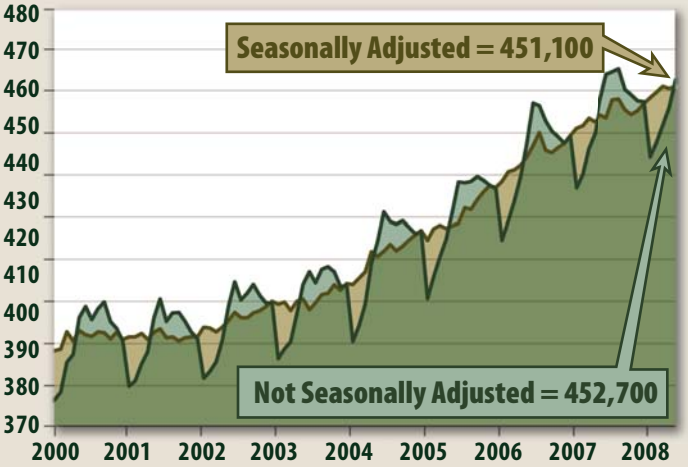
Seasonally Adjusted



Montana's seasonally-adjusted unemployment rate increased to 4.2% in May 2008 from 3.8% in April. The U.S. also increased to 5.5% from 5.0 over the month.

NON-FARM EMPLOYMENT

In Thousands



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Montana Department of Labor and Industry

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P.O. Box 1728 Helena, MT 59624-1728

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Measuring the Cost of Living in Montana

by Aaron McNay, Economist

If you have traveled, you may have noticed that the cost of living can be different from one place to the next. At the same time, anyone living in a rapidly growing area can tell you that the cost of living can change over time. Information on the cost of living in a region can be very important. Does that new job pay enough? Is my pay raise enough to cover rising food prices? Some type of cost of living information is required to answer both of these questions. Unfortunately, measuring the cost of living in Montana, and how it has changed, is not as easy as it sounds. This article provides information on some of the resources available to measure cost of living differences.

Price and Comparative Indexes

The cost of living can be measured in two ways: over time or by location. Changes to the cost of living over time, referred to as inflation, are measured using a price index. The price indexes examined in this article are the Consumer Price Index and the Wyoming Cost of Living Index. To compare prices by location, a comparative index, such as the American Chamber of Commerce Researchers Association's Cost of Living Index, is needed.

The Consumer Price Index

Price indexes are used to measure the inflation of prices in an economy. The most common index is the Consumer Price Index (CPI), which is generated by the Bureau of Labor Statistics (BLS). The CPI is the standard method of measuring inflation because it measures the end prices that consumers pay.

What exactly is the CPI? The BLS describes the CPI as "a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services."[1] Put simply, the CPI measures how prices change over time. Each month, the BLS collects price data on 80,000 goods from urban areas across the coun-

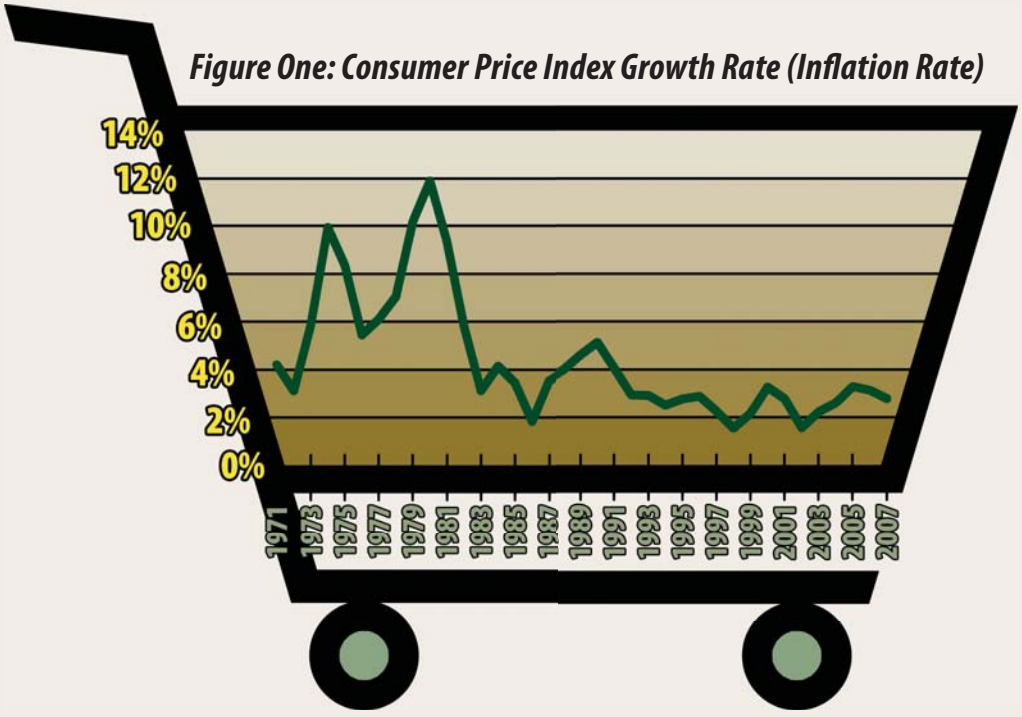
try. These goods are chosen to represent everyday items purchased by urban consumers. Once the current price data is collected, it is compared to the prices of the same goods in the reference period. When complete, the index compares prices and measures inflation over time (see Figure One).

Many people refer to the CPI as a cost of living index. While a cost of living index and the CPI both measure price changes over time, a cost of living index would also measure changes in consumer consumption. This is necessary because the goods that are consumed today may not be the same ones that will be consumed five years from now. A true cost of living index would adjust for these consumption changes. The CPI only partially adjusts for consumption shifts by allowing for the substitution of goods within large spending categories. There is no substitution of goods between categories. This inability to substitute some goods causes the CPI to overestimate the cost of maintaining a particular standard of living.

Another weakness of the CPI is that it fails to measure the consumption of public goods (public transportation, law enforcement, education, etc.) that affect everyone's standard of living. By not including public goods, the CPI is unable to provide a true measure of the changes in the cost of living from one period to the next. The use of urban prices, the inability to substitute goods, and the lack of price data for public goods are all factors that prevent the CPI from truly measuring cost of living changes in rural areas like Montana.

The BLS is aware of the aforementioned limitations and attempts to minimize them whenever possible. For example, the introduction of a geometric mean formula in 1999 allows for the index to adjust for some substitution of goods within each category.[2] Continual improvements in statistical techniques, as well as the large sample size, make the CPI a very reliable source of urban data and a strong measure of inflation.

Figure One: Consumer Price Index Growth Rate (Inflation Rate)

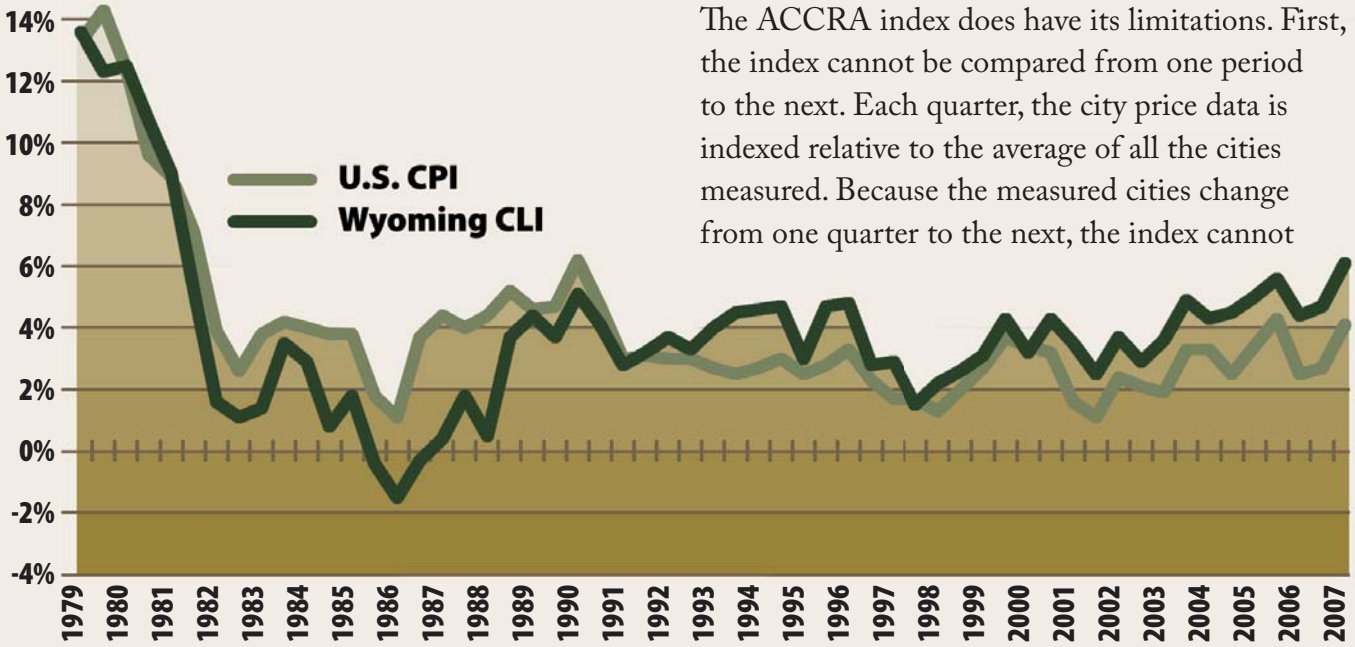


Wyoming's Cost of Living Index

The CPI is limited to urban price data. This is not a problem when examining urban areas such as New York City, or Boston. If the area is rural, such as Montana, the CPI may not be a good representation of real price changes. Thankfully, Wyoming's Economic Analysis Division has developed the Wyoming Cost of Living Index (WCLI), which is likely to better represent the price levels in Montana.

Twice a year, price data is collected from 28 cities all across the state of Wyoming. The data is weighted to reflect the relative importance of items such as housing and food within an individual's budget. The price data is then used to estimate inflation rates and to develop comparative indexes (see Figure Two). Overall, the process for estimating the WCLI is very similar to the CPI, but it only measures rural Wyoming prices.

Figure Two: Annual Estimated Inflation Rates for the U.S. and Wyoming[3]



ACCRA Cost of Living Index

Both the CPI and WCLI are very useful in examining price inflation over time, but they do not provide information on comparative price levels between two areas at a single point of time. A comparative index should be used to compare prices between areas. The American Chamber of Commerce Researchers Association's (ACCRA) Cost of Living Index, which is developed by the Council for Community and Economic Research, is a commonly used comparative index. This index includes some Montana data, and it can be used to compare areas all across the country.

The ACCRA index examines price data from over 300 cities at a single point in time. It collects indexed price information for various goods typically consumed by people. Once collected, the prices are weighted based on expenditure patterns. The completed index reveals how each city ranks relative to the average cost of living in all the measured cities. A value above 100 indicates that the cost of living is above average. Below 100 and the cost of living is below the average. The ACCRA index is only available by subscription.

The ACCRA index does have its limitations. First, the index cannot be compared from one period to the next. Each quarter, the city price data is indexed relative to the average of all the cities measured. Because the measured cities change from one quarter to the next, the index cannot

measure price changes over time. Second, the ACCRA index only has data on three Montana cities (Missoula, Bozeman, and Kalispell). With so little data, it is nearly impossible to get an accurate cost of living estimate for the entire state. For information outside these three areas, a different index should be used.

Measuring the Cost of Living in Montana

It would be nice if a strong cost of cost of living index existed for Montana. Unfortunately, a perfect index is not available. The ACCRA cost of living index can be used to compare the prices from area to another. This index has useful information on the cost of living in a few of Montana's cities. However, making generalizations about the statewide cost of living based on ACCRA's data may not be a good idea. Bozeman, Kalispell, and Missoula are relatively large, young, and fast-growing cities, and may not be representative of the entire state.

Both the CPI and the WCLI are used when measuring price changes over time, but each index has its own limitations, and can act only as a proxy, or substitute for actual Montana data. The use of each index as a proxy is not a concern as long as the proxy data is similar to Montana price data.

The standard proxy for inflation in Montana is the CPI. The national data and large sample size ensure that the CPI data is consistent and accurate. This consistent data is one reason why the CPI is the standard method of measuring inflation in Montana. But, the CPI's lack of rural data means that the measured area is not very similar to Montana. This causes the CPI to perform poorly as a proxy for Montana whenever urban and rural prices move differently.

In contrast,the WCLI does measure rural prices, although these prices are in rural Wyoming. When Montana's prices move similarly to Wyoming's prices, the WCLI is a better proxy for Montana than the CPI.

All of the indexes that were mentioned lack specific data for Montana. Therefore, none of them will be a perfect proxy for Montana. The CPI's use in many federal and state programs has lead to the CPI becoming the standard method of measuring cost of living changes. While the CPI may be the standard index, it is far from being the only one. At times, alternative indexes, including the WCLI or ACCRA, can result in better estimates of price changes in Montana.

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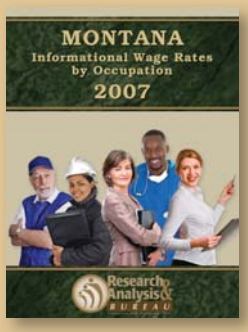
[1] *Consumer Price Index Frequently Asked Questions, Bureau of Labor Statistics, http://www.bls.gov/cpi/cpifaq.htm*

[2] *Consumer Price Index Addendum to Frequently Asked Questions, Bureau of Labor Statistics, http://www.bls.gov/cpi/cpiadd.htm#4_1*

[3] *Inflation Tables Using WCLI and CPI-U Index Numbers, Wyoming Economic Analysis Division*

UPDATED WAGE RATES



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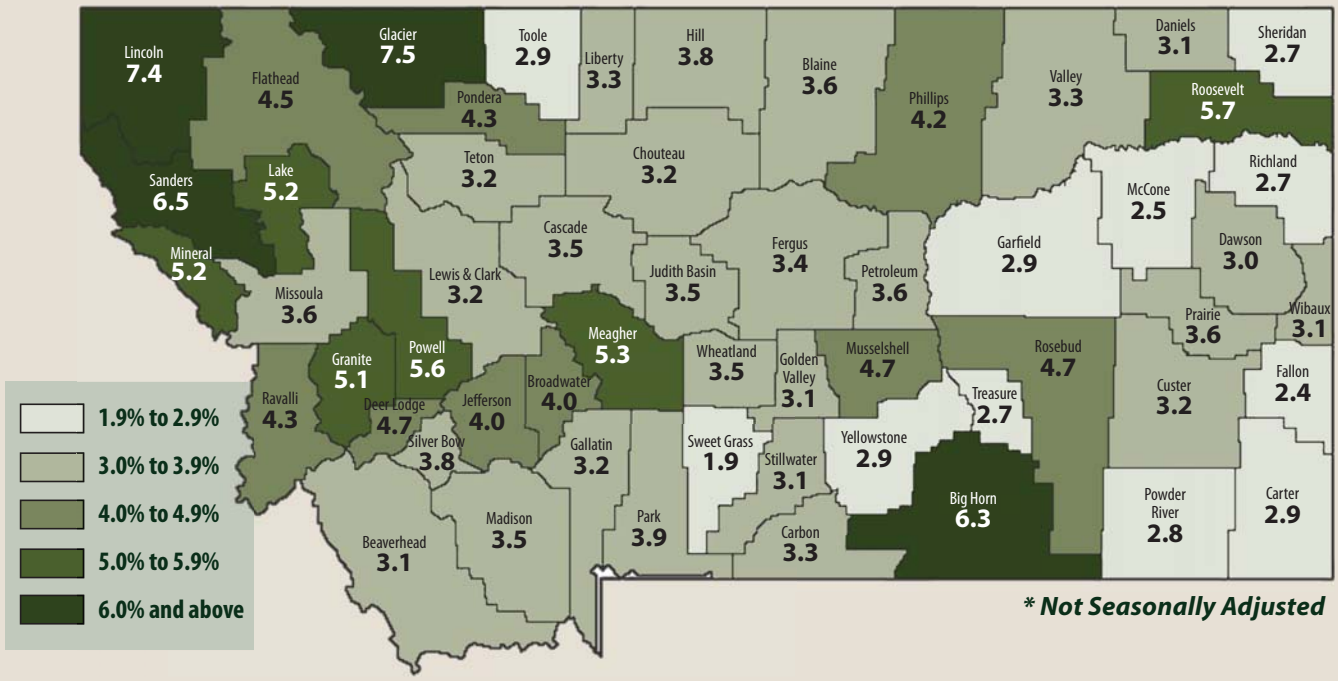
County Unemployment Rates* - May 2008

Montana Average Rate: 3.7%



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